



CGA P-50—2014

SITE SECURITY STANDARD

THIRD EDITION

PLEASE NOTE:

The information contained in this document was obtained from sources believed to be reliable and is based on technical information and experience currently available from members of the Compressed Gas Association, Inc. and others. However, the Association or its members, jointly or severally, make no guarantee of the results and assume no liability or responsibility in connection with the information or suggestions herein contained. Moreover, it should not be assumed that every acceptable commodity grade, test or safety procedure or method, precaution, equipment or device is contained within, or that abnormal or unusual circumstances may not warrant or suggest further requirements or additional procedure.

This document is subject to periodic review, and users are cautioned to obtain the latest edition. The Association invites comments and suggestions for consideration. In connection with such review, any such comments or suggestions will be fully reviewed by the Association after giving the party, upon request, a reasonable opportunity to be heard. Proposed changes may be submitted via the Internet at our web site, www.cganet.com.

This document should not be confused with federal, state, provincial, or municipal specifications or regulations; insurance requirements; or national safety codes. While the Association recommends reference to or use of this document by government agencies and others, this document is purely voluntary and not binding unless adopted by reference in regulations.

A listing of all publications, audiovisual programs, safety and technical bulletins, and safety posters is available via the Internet at our website at www.cganet.com. For more information contact CGA at Phone: 703-788-2700, ext. 799. E-mail: customerservice@cganet.com.

Work Item 11-046
Security Committee

NOTE—Technical changes from the previous edition are underlined.

THIRD EDITION: 2014
SECOND EDITION: 2007
FIRST EDITION: 2005

© 2014 The Compressed Gas Association, Inc. All rights reserved.

All materials contained in this work are protected by United States and international copyright laws. No part of this work may be reproduced or transmitted in any form or by any means, electronic or mechanical including photocopying, recording, or any information storage and retrieval system without permission in writing from The Compressed Gas Association, Inc. All requests for permission to reproduce material from this work should be directed to The Compressed Gas Association, Inc., 8484 Westpark Drive, Suite 220, McLean, VA 22102. You may not alter or remove any trademark, copyright or other notice from this work.

Contents	Page
1 Introduction.....	1
2 Scope	1
3 Definitions.....	1
4 Resource information	4
5 Facility security tier ranking	5
6 Security vulnerability assessment	5
6.1 Project planning.....	6
6.2 Facility characterization.....	7
6.3 Threat assessment.....	10
6.4 Vulnerability analysis.....	10
6.5 Countermeasure identification.....	11
7 Physical security.....	12
7.1 General information.....	12
7.2 Signage	12
7.3 Perimeter barrier.....	12
7.4 Perimeter clearance	14
7.5 Bollards.....	14
7.6 Access control	15
7.7 Lighting.....	16
7.8 COC/COI Storage.....	17
7.9 Loss prevention and material control/accountability.....	17
7.10 Control room and systems security	17
7.11 Policies and procedures	17
7.12 Information (cyber) security	18
7.13 Intelligence	19
7.14 Incidents	19
7.15 Reporting.....	19
7.16 Investigation	19
7.17 Analysis.....	19
8 Crisis management plans and emergency response plans.....	19
9 Employee and contractor security issues.....	20
10 Periodic assessment and audit	20
11 References	20
12 Additional information.....	20
 Tables	
Table 1—Tier ranking.....	5
Table 2—Minimum physical security layers of protection	13
 Figures	
Figure 1—Security vulnerability assessment management process.....	6
Figure 2—Layers of protection.....	9

This page is intentionally blank.

1 Introduction

Implementation of security measures are a part of the industrial gas industry culture that protect facilities, employees, and the community by reducing the risk of a wide range of threats and mitigating the effects of incidents such as vandalism, sabotage, workplace violence, and terrorism. Security measures enhance process safety management (PSM), risk management programs (RMP), worker safety, and environmental protection.

A security program should include the following elements:

- site screening for risk prioritization;
- security vulnerability assessment (SVA);
- incident reporting and investigation;
- emergency response and crisis management;
- employee and contractor security issues;
- periodic reassessment; and
- employee security awareness training.

The Compressed Gas Association (CGA) thanks the Center for Chemical Process Safety (CCPS) of the American Institute of Chemical Engineers for granting permission to reproduce and adapt large sections of its book *Guidelines for Analyzing and Managing the Security Vulnerabilities of Fixed Chemical Sites* [1].¹

2 Scope

This publication provides instruction to the industrial gas industry for assessing security risks and identifying and implementing preventive security measures at fixed sites. It is intended as a resource to help managers at individual facilities make security decisions based on risk.

The publication does not attempt to provide an all-inclusive list of security considerations for industrial gas companies nor does it address transportation security and security at customer sites. Additional security information is contained in CGA P-51, *Transportation Security Standard for the Compressed Gas Industry* and CGA P-52, *Security Standard for Qualifying Customers Purchasing Compressed Gases* [2, 3].

3 Definitions

For the purpose of this publication, the following definitions apply.

3.1 Publication terminology

3.1.1 Shall

Indicates that the procedure is mandatory. Shall is used wherever the criterion for conformance to specific recommendations allows no deviation.

3.1.2 Should

Indicates that a procedure is recommended.

3.1.3 May

Indicate that the procedure is optional.

3.1.4 Will

Is used only to indicate the future, not a degree of requirement.

¹ References are shown by bracketed numbers and are listed in order of appearance in the reference section.